



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/856,440	05/14/97	DEARLEY	R AND0434

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EXAMINER
NGUYEN, K

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 10/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/856,440

Applicant(s)

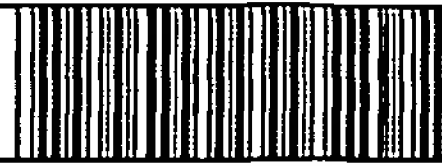
Dearley

Examiner

Kimnhung Nguyen

Group Art Unit

2821



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-29 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-29 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5, 9, 19-20, 22-23, and 25, drawn to the apparatus and method claims 16-18 and 27-29 are rejected under 35 U.S.C. 102(b) as being by Donovan (US patent 4,446,465).
3. Regarding claims 1-2, 4-5, 9, 19-20, 22-23, and 25, Donovan discloses in figures 1-2, an antenna for receiving electromagnetic signals comprising a ground plane (18) with a length and having a vertical axis along the length; a plural of dipole radiating elements (12, 14, 16), the radiating elements comprised of a first and second co-located, orthogonal dipoles (30-36), the dipoles aligned at first and second predetermined angles with respect to the vertical axis (figure 1), an inherent of supports connected to the ground plane and perpendicular to the vertical axis and placed between selected of the plurality of dipole radiating elements; a plurality of metallic parasitic elements (20, 22, 24) placed in a selected of the plurality of supports. The first predetermined angle is equal to +45 degrees with respect to the vertical axis and the second predetermined angle is equal to -45 degrees with respect to the vertical axis. The support

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comprises an upper surface and the parasitic elements are positioned along said upper surface of the support, (see figures 1 and 3). The plurality of supports is located midway between the radiating elements (see figure 3). The radiating elements transmit electromagnetic signals, (see column 2, lines 53-59). Furthermore, Donovan also discloses in figure 2, the plurality of radiating elements includes three radiating elements (12, 14,16), (see figure 1). The apparatus discussed above would perform the claimed method.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 6, 7-8, 10-15, 21, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donovan (US patent 4,446,465) in view of Mailandt et al. (US patent 5,629,713).

Donovan discloses every feature of the claimed invention, excluding the parasitic elements being composed of aluminum, the ground plane being composed of metal, the diversity

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reception means coupled to the plurality of radiating elements for selecting between the plurality of electrical signals.

Regarding claims 3 and, 21 Mailandt et al. disclose the parasitic elements are composed of aluminum, (see column 6, lines 44-49).

Regarding claim 10, Mailandt et al. disclose the diversity reception means coupled to the plurality of radiating elements for selecting between the plurality of electrical signals, (see column 6, lines 6-15).

Since one of ordinary in this art would recognize the benefit of selecting signal of the antenna, it would have been obvious to provide Dononva with diversity reception means as taught by Mailandt et al.

Regarding claims 7,8, and 26, it would have been an obvious matter of design choice to have four radiating elements and two supports, since applicant has not disclosed that four radiating elements and two supports solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with three radiating elements and three supports as taught by Donovan.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kimnhung Nguyen whose phone number is

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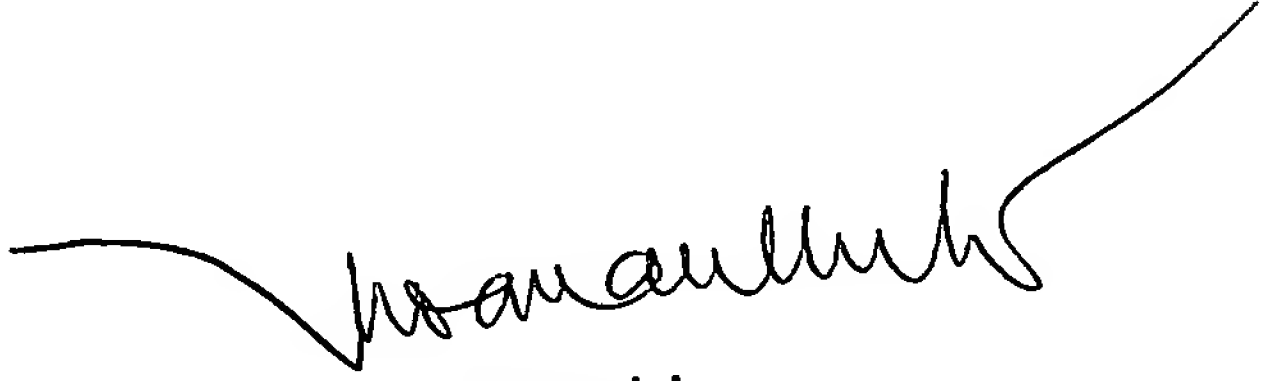
(703) 308-0425. If unavailable, then call Primary Examiner Don Wong whose telephone number is (703) 308-4856.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

September 28, 1998

Kimnhung Nguyen



Hoanganh Le
Primary Examiner